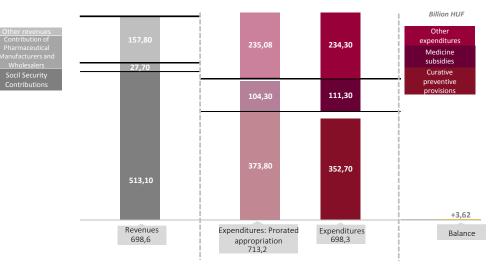




With the introduction of the e-prescription, the fillings of the patients are more transparent, the prescription is limited, and the health insurer has access to more information (HUN)

Macro approach to financing healthcare and medicinal products

Balance of the Health Insurance Fund, April 2017



Source: Healthware analysis based on NHIFA data

35/494 Legislation 77/494 Activity of Parliament NIHIFM decisions

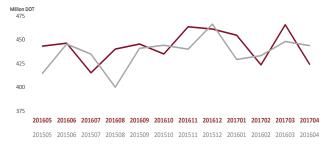
Our publications

Our presentation and posters from the IME-META Conference 2017 have been published:

- 1. Opportunities and challenges of performance based financing in drug reimbursement (HUN): **Link**
 - 2. Data mining with graphical methods (HUN): Link
 - Analytical opportunities of the itemized patient turnover report of GP's (B300) (HUN): Link
 - 4. Multifactor analysis for effectiveness based evaluation of high value therapies (HUN): **Link**
 - 5. Methods of process analysis and assessment in development of health care/reimbursement protocols (HUN): **Link**

Dynamics of the sales/circulation of prescription-only-medicine

Pharmacy DOT turnover



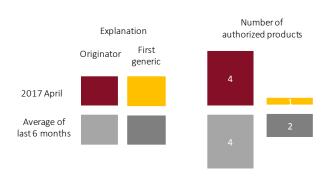
Source: Healthware analysis based on NHIFA da

Pharmacy reimbursement turnover



Source: Healthware analysis based on NHIFA data

Changes to subsidised medicinal product categories, April 2017





Source: Healthware analysis based on NHIFA data

Healthware Consulting Ltd.

Actualities of Hungarian pharmaceutical financing market

No. 6, Issue V. June 2017 Published: 04/07/2017

Market data

dimethyl fumarate

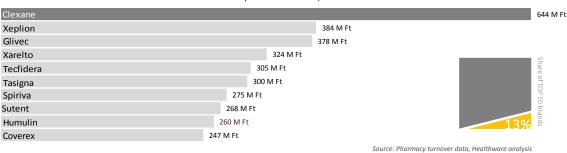
Toplists of reimbursement and number of patients, April 2017

TOP 10 ATCs by all reimbursement paid enoxaparin 600 M Ft other nutrients paliperidone 582 M Ft rosuvastatin 424 M Ft 420 M Ft insulin glargine Share of TOP 10 active sub 414 M Ft imatinib rivaroxaban 324 M Ft perindopril and diuretics 320 M Ft 316 M Ft insulin (human)

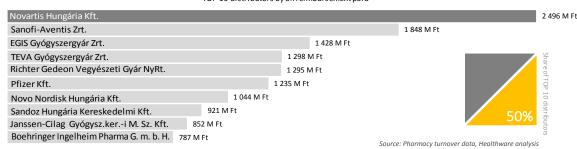
TOP 10 brands by all reimbursement paid

305 M Ft

Source: Pharmacy turnover data, Healthware analysis



TOP 10 distributors by all reimbursement paid

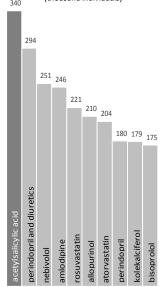


Average number of medical sales reps



Source: NHIFA data, Healthware analysis

TOP 10 active substances by number of patients (thousand individuals)



Reliability and alternatives of evaluation of medical sales representatives — Case study

widely applicable evaluation systems today. These are typically used to measure th effectiveness of certain therapies, support financing decisions, and optimize patient mana gement problems. In our case study we present another possibility of using RWE, which ha not been exploited yet.

ungary, the number of medical sales representatives today exceeds 1700. Their rating traditionally based on the turnover of sold units sold from the given product in the case of or non-subsidized formulations. While this is the case, the implementation and measurement of the related pre-set strategy by cycles is limited. In our case study we wonder whether the unit number really shows the effectiveness of the representatives work, or is it the only factor in which to evaluate their activity and whether other factors ca

The goals fixed to the product's life-cycle (well planned) and to the market condition (difficult to plan) that may be communicated to medical sales representatives may change over time. For example, in the case of an underlying brand, the focus of new patients will be given greater emphasis, whereas after a while the retention of older patients and the increase in adherence of patients in therapy may be at the heart of the strategy. But the goals are determined differently by a financing decision, or by the competitive activity of a

strategy properly, if instead of setting up new patients increased adherence of older patients is reached in the given assessment period, resulting in a higher number of units evel of strategy mapping, such as excluding new patients over a period of time. If we cannot judge the impact of the higher number of units sold, we are only able to target on a macro

The pro and con features of the multi-view approach we propose and of the current unit-

Multi-view, RWE-based approach		Unit number based assessment	
Pro	Con	Pro	Con
- measures and evaluates the most important goals for the given cycle	- can only be achieved in subsidized therapeutic areas	- easily understandable	- does not measure exactly the adequacy to the objectives
- is able to teach the system, making targeting more accurate and assisting the planning of the next period	- requires more attention and engagement due to its complexity	- results can be easily presented	- thus giving space to self- explanatory results
- provides feedback to medical sales representatives and to the management	- time-consuming and costly	- can be achieved both in subsidized and non-subsidized product range	- does not support differentiate medical sales representative targeting and strategy creation
- a more accurate tool for measuring performance, results in a fairer premium allocation			
- - in the long run, provides more accurate planning and competitive advantage			

that influence the unit turnover of the given product. These factors can be studied on real financing data by area or medical sales representatives, enabling the detailed evaluation and feedback of the turnover generated by medical sales representatives to be provided either in the premium awarding system or in the creation of a new strategy.

therapeutic area during the 2016 Q4 period. In our example, the 2016 Q4 strategy was to increase the number of new patients

The results show that while the number higher for medical sales rep 1, th number of new patients is lower tha higher, but the optimal strategy has no

Point of view	Sales rep 1	Sales rep 2
Number of units	3 163	3 146
Number of patients	1 382	1 405
Number of new patients	217	240
Number of replacing patients	224	296
MPR (median)	0,84	0,83

come into effect. The same example can be further enhanced if we combine the new patient's objective with the goal of increasing adherence (we can do it). But we also set objectives for competing therapies in the area of the medical sales representatives – for example, to lose fewer patients than our most competing therapy. The number and combination of the possible measurable (!) objectives can still be listed.